IN THE CLAIMS:

1. (Previously presented) An immunoglobulin molecule or fragment thereof comprising a region where amino acid residues corresponding to at least a portion of a complementarity determining region (CDR) are replaced with a peptide mimetic selected from the group consisting of erythropoietin (EPO) mimetics and thrombopoietin (TPO) mimetics, wherein the immunoglobulin molecule or fragment thereof binds an EPO or TPO receptor.

2. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 further comprising at least one flanking sequence including at least one amino acid covalently linked to at least one end of the peptide mimetic.

3. (Original) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the at least one flanking sequence includes a flanking sequence having a proline that is covalently linked to the peptide mimetic.

4. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 1 wherein at least a portion of two complementarity determining regions (CDRs) are replaced with the same or different peptide mimetics selected from the group consisting of EPO mimetics and TPO mimetics.

5. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule fragment is selected from the group consisting of Fab fragment, $F(ab')_2$ fragment and ScFv fragment.

6. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule is a full IgG molecule.

7. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is located on a light chain.

8. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is located on a heavy chain.

9. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of a CDR3 of a heavy chain and a CDR2 of a light chain.

10. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR2 of a heavy chain.

11. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR is selected from the group consisting of CDR3 of a heavy chain and CDR1 of a light chain.

12. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 1 wherein amino acid residues corresponding to at least a portion of more than one CDR are replaced with the same or different peptide mimetics selected from the group consisting of EPO mimetics and TPO mimetics.

13. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the CDR3 regions of a heavy chain and a light chain are replaced with the peptide mimetic.

14. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 12 wherein amino acid residues corresponding to at least a portion of both CDR2 and CDR3 are replaced.

15. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 14 wherein at least one of the CDR2 or CDR3 the CDR is located in a heavy chain.

16. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 14 wherein at least one of the CDR2 or CDR3 the CDR is located in a light chain.

17. (Withdrawn) An immunoglobulin or fragment thereof according to claim 1 wherein the EPO mimetic comprises the amino acid sequence set forth in SEQ. ID. NO. 3.

18. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the TPO mimetic comprises the amino acid sequence set forth in SEQ. ID. NO. 1.

19. (Original) An immunoglobulin molecule or fragment thereof according to claim 3 wherein the CDR is replaced with a peptide having a sequence including that set forth in SEQ. ID. NO. 2.

20. (Withdrawn) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the CDR is replaced with a peptide comprising an amino acid sequence selected from the group consisting of SEQ. ID. NO. 25, SEQ. ID. NO. 27, SEQ. ID. NO. 29, SEQ. ID. NO. 31, SEQ. ID. NO. 33, SEQ. ID. NO. 35, SEQ. ID. NO. 37, SEQ. ID. NO. 39, SEQ. ID. NO. 41, SEQ. ID. NO. 43, SEQ. ID. NO. 45, SEQ. ID. NO. 47, and SEQ. ID. NO. 49.

21. (Withdrawn) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the CDR is replaced with a peptide comprising an amino acid sequence selected from the group consisting of SEQ. ID. NO. 31, SEQ. ID. NO. 35, SEQ. ID. NO. 37, SEQ. ID. NO. 39, SEQ. ID. NO. 41, SEQ. ID. NO. 43, SEQ. ID. NO. 45, and SEQ. ID. NO. 49.

22. (Original) An immunoglobulin molecule or fragment thereof according to claim 1 wherein the immunoglobulin molecule or fragment thereof is human.

23. (Original) An immunoglobulin molecule or fragment thereof according to claim 22 wherein the immunoglobulin molecule or fragment thereof is anti-tetanus toxoid.

24 -35 (Cancelled)

36. (Original) A composition comprising an immunoglobulin or fragment thereof according to claim 1 and a pharmaceutically acceptable carrier.

37 – 43 (Cancelled)

44. (Currently amended) An immunoglobulin molecule or fragment thereof comprising a region where amino acid residues corresponding to at least a portion of a CDR are replaced with a biologically active peptide flanked with a proline at the carboxy terminus of the biologically active peptide to create a resulting immunoglobulin molecule or fragment thereof, wherein said biologically active peptide has a biological activity and wherein the resulting immunoglobulin molecule or fragment thereof exhibits ~~a desirable~~the biological activity of the biologically active peptide.

45. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 44 wherein amino acid residues corresponding to at least a portion of at least two CDR regions are replaced with the same or different biologically active peptides, at least one of which is flanked with a proline at the carboxy terminus.

46 – 84 (Cancelled)

85. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 44 wherein the biologically active peptide is flanked with a proline at its carboxy terminus and flanked with an amino acid sequence at its amino terminus.

86. (Currently amended) An immunoglobulin molecule or fragment thereof comprising a region where amino acid residues corresponding to at least a portion of a CDR are replaced with a biologically active peptide and the biologically active peptide is flanked at its carboxy terminus with an amino acid sequence selected from the group consisting of proline-valine, proline-aspartic acid, proline-isoleucine, serine-asparagine, serine-lysine, serine-glycine, serine-arginine, leucine-histidine, leucine-glutamic acid, leucine-alanine, leucine-phenylalanine, valine-glutamine, valine-serine, valine-alanine, valine-asparagine, isoleucine-serine, isoleucine-tyrosine, aspargine-proline, aspargine-serine, aspargine-tryptophan, aspargine-valine, phenylalanine-valine, threonine-serine, methionine-alanine, arginine-serine, arginine-glycine, arginine-threonine, arginine-leucine, arginine-valine, tryptophan-arginine, tryptophan-tryptophan, alanine-arginine, aspartic acid-valine, glycine-tyrosine, glutamine-arginine, and glysine-lysine, to create a resulting immunoglobulin molecule or fragment thereof, wherein said biologically active peptide has a biological activity and -wherein the resulting immunoglobulin molecule or fragment thereof exhibits ~~a desirable~~the biological activity of the biologically active peptide.

87. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 44 wherein the biologically active peptide is flanked at its carboxy terminus with an amino acid sequence selected from the group consisting of proline-valine, proline-aspartic acid, proline-isoleucine, and aspargine-proline.

88. (Original) An immunoglobulin molecule or fragment thereof according to claim 44 wherein the biologically active peptide is flanked at its amino terminus with an amino acid sequence selected from the group consisting of tryptophan-leucine, valine-valine, glycine-proline, leucine-proline, leucine-tyrosine, serine-leucine, serine-isoleucine, serine-proline, threonine-methionine, threonine-tyrosine, threonine-proline, glutamine-threonine, glutamine-

glutamic acid, glutamine-leucine, arginine-methionine, arginine-asparagine, arginine-threonine, arginine-glycine, arginine-serine, lysine-glutamic acid, lysine-glycine, alanine-histidine, histidine-glycine, histidine-leucine and asparagines-proline.

89. (Original) An immunoglobulin molecule or fragment thereof according to claim 85 wherein the biologically active peptide is flanked at its amino terminus with an amino acid sequence selected from the group consisting of tryptophan-leucine, valine-valine, glycine-proline, leucine-proline, leucine-tyrosine, serine-leucine, serine-isoleucine, serine-proline, threonine-methionine, threonine-tyrosine, threonine-proline, glutamine-threonine, glutamine-glutamic acid, glutamine-leucine, arginine-methionine, arginine-asparagine, arginine-threonine, arginine-glycine, arginine-serine, lysine-glutamic acid, lysine-glycine, alanine-histidine, histidine-glycine, histidine-leucine and asparagine—proline.

90. (Original) An immunoglobulin molecule or fragment thereof according to claim 4 wherein the at least two CDRs are selected from the group consisting of heavy chain CDR3-heavy chain CDR2, heavy chain CDR3-light chain CDR2, heavy chain CDR2-light chain CDR2, heavy chain CDR3-heavy chain CDR2-light chain CDR2 and heavy chain CDR3-light chain CDR1.

91. (Withdrawn) An immunoglobulin molecule or fragment thereof according to claim 4 wherein a heavy chain CDR3 is replaced with a peptide mimetic having SEQ ID NO. 39 and a light chain CDR2 is replaced with a peptide mimetic having SEQ ID NO. 61.

92. (Withdrawn) An immunoglobulin molecule or fragment thereof according to claim 45 wherein a heavy chain CDR3 is replaced with a peptide mimetic having SEQ ID NO. 39 and a light chain CDR2 is replaced with a peptide mimetic having SEQ ID NO. 61.

93 – 95 (Cancelled)

96. (Previously presented) An immunoglobulin molecule or fragment thereof comprising a region where amino acid residues corresponding to at least a portion of a complementarity complementary determining region (CDR) are replaced with a peptide comprising SEQ ID NO. 2 and wherein the immunoglobulin molecule or fragment thereof binds a TPO receptor.

97. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 2 wherein the flanking sequence consists of two amino acids.

98. (Previously presented) An immunoglobulin molecule or fragment thereof according to claim 3 wherein the flanking sequence consists of two amino acids.

99. (Currently amended) An immunoglobulin molecule or fragment thereof comprising a region where amino acid residues corresponding to at least a portion of a CDR are replaced with a biologically active peptide flanked with an amino acid flanking sequence consisting of two amino acids to create a resulting immunoglobulin molecule or fragment thereof, wherein said biologically active peptide has a biological activity and -, wherein the resulting immunoglobulin molecule or fragment thereof exhibits ~~a desirable~~the biological activity of the biologically active peptide.